

Spiritual Growth in Patients with Type II Diabetes Mellitus: A Qualitative Study

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Background: The investigation of spiritual growth and its dimensions in the diabetic patients can help these individuals adjust to the stressful event of this disease. Regarding this, the present study aimed to explore the spiritual growth and its dimensions in the patients with type II diabetes mellitus.

Methods: This qualitative study was conducted on the adult patients with a history of at least one year of type II diabetes mellitus, who referred to the Diabetes Clinic of the Imam Khomeini Hospital in Ardabil, Iran, using an interpretive phenomenological approach. The sampling was performed using the purposive sampling and the data was collected through semi-structured interview. Each interview was transcribed verbatim and analyzed based on the Van Manen's method.

Results: The data analysis led to the emergence of 237 codes, 3 main themes, and 7 subthemes. The basic themes included tendency to spirituality, God-centeredness, and moral growth.

Conclusion: As the findings of this study indicated, the diabetic patients had turned to spirituality more than ever and used it as a powerful tool to cope with their disease. The emerging new categories highlighted the new aspects of diabetes consequences that can help develop the concept of spirituality in the nursing science, and also have clinical applications in this discipline. The care providers can take advantage of these findings to enhance the patients' spiritual growth and improve their compliance with the stressful events of diabetes.

Keywords: Diabetes mellitus, Phenomenology, Spirituality, Spiritual growth

Introduction

Diabetes mellitus is one of the most common metabolic disorders with a wide prevalence in the late 20th century, afflicting millions of people in the world (1). This disease is associated with many complications, including nephropathy, lower extremity amputation, blindness, coronary artery disease, and brain stroke, which can significantly affect the patient's quality of life and create many tensions (2-4). In addition, depression, anxiety, and adjustment disorders are the most common mental disorders observed in the patients suffered from diabetes (5-9).

Studies have shown that facing with stressful events can lead to individual growth. According to the literature, the majority of the patients who survived cancer experienced positive changes during their disease course (10-16). Diabetes is also regarded as a stressful event, which can be associated with positive changes despite its detrimental effects. Diabetes might be accompanied by many tensions, which in turn provide grounds for a phenomenon known as "growth" (17).

Based on the literature, mankind shows higher tendency towards spirituality and religion when exposed to stressful events and chronic diseases (19-20); accordingly, they use spirituality as a coping strategy. Spirituality assists maintaining the health of the patients and even sometimes lead to positive mental effects (20). As a dimension of human existence, spirituality refers to the search for meaning and purpose through which one establish his/her relationship with time, oneself, others, and God (21).

Spirituality is one of the important factors affecting the quality of life, quality of care, and satisfaction (22-26). In addition, spirituality can have an impact on people's coping with their chronic diseases. In a study conducted by Choumanova et al. (2006) in Latin America, spirituality was identified as one of the important strategies for the patients with breast cancer to cope with their disease (27). The previous studies conducted in Iran have also shown that the Iranian patients with breast cancer turned to spirituality more than any other concept for coping with their disease (19).

Furthermore, the diabetic patients use spirituality as a coping mechanism. In this regard, the studies conducted in the eastern and western societies have also revealed that spirituality can be applied as a care strategy along with proper diet, regular exercise, and pharmacotherapy for controlling diabetes (28-29). While the majority of the Iranians have high spiritual beliefs, their tendency towards spirituality might even increase more than ever due to diabetes, which is considered as a stressful event, causing fear and uncertainty for the patients (18).

Nevertheless, limited information is available about the emergence of spiritual dimensions in diabetics. On the other hand, practicing spiritual care in the diabetic patients requires the elucidation of various aspects of spirituality after diabetes diagnosis. The identification and perception of the belief and spiritual behavior of the diabetic patients, which are rooted in the patients' culture, can help the nurses design and implement proper care programs.

Since spirituality is considered an abstract concept, it is difficult to provide an accurate definition for it and identify its components. This is mainly due to the fact that the quantitative studies cannot simultaneously demonstrate the content and details of the belief and determine their underlying differences. Therefore, this highlights the necessity of performing a qualitative study with a phenomenological approach, which can detect the various dimensions of spirituality and its growth based on the experiences of the patients with type II diabetes mellitus.

Therefore, the identification of various spirituality dimensions in the Iranian diabetic patients can provide the nurses and healthcare providers with useful information, which enable them better to help these patients to cope with their disease and even facilitate their growth in this regard. On the other hand, spirituality is a complicated and multidimensional concept, which has no specific definition.

In addition, this concept is affected by many factors, including culture. Accordingly, spirituality (or at least some dimensions of this concept) can significantly vary from one

country to another according to the religious and social structure of different societies (30). With this background in mind, this study aimed to evaluate spiritual growth and its dimensions among the Iranian diabetic patients to provide a suitable guide for healthcare providers in planning care programs.

methods

This qualitative study was conducted on 22 patients with type II diabetes mellitus referring to the Diabetes Clinic of the Imam Khomeini Hospital in Ardabil, Iran, over a course of nine months. The inclusion criterion was the elapse of at least one year from the diagnosis of the patient's disease.

In this study, we applied the interpretive phenomenological approach to obtain a deeper understanding of the spiritual growth dimensions in the patients with type II diabetes mellitus (31). Based on this method, the researchers evaluate the phenomenon by considering the experiences of the participants and the way they make sense of their experiences. To this aim, the researcher implements some discussion and important meetings with the participants and team members of the research project to understand the nature of the phenomenon under discussion (32).

The data collection was performed through semi-structured interviews. The subjects were selected through the purposive sampling technique. Accordingly, the sampling was continued until saturation was achieved, i.e., the point at which no new information emerged from the data (32). In this regard, on the 19th interview, it seemed that the obtained responses were repetitive, and no new information was added to the data. Therefore, to ensure the saturation of the data, the interview was continued with three other participants, and the analysis was performed on 22 interviews.

All of the interviews were performed in the counseling room of the Diabetes Clinic, except for two cases that was carried out at the participants' homes. The time and location of the interviews were selected based on the participants' interests. Each interview lasted 45-90 min.

The main questions asked during these interviews were "Has diabetes affected your spirituality?", "Could you explain about the changes in your spirituality caused by this disease?", "How has the experience of diabetes affected your motivation and tendency towards spirituality?", "How has the experience of diabetes affected your religious tasks?", "Has diabetes affected your spirituality?", and "What are the important spiritual beliefs and values in your life?" During these interviews, probing questions, including "Can you explain more?" and/or "Can you provide an example to elaborate on your statement?" were also asked.

Along with the data collection, the data were analyzed using the Van Manen's approach (1997). This method combines the descriptive and interpretative features of the phenomenological approach with the aim of understanding the essence of a phenomena (33). To obtain the essence of a phenomenon and its related themes, a large amount of data is required (32). Therefore, after each interview, the recorded dialogue was carefully listened to and transcribed verbatim.

According to the Van Manen's method, there are three approaches available for extracting the thematic aspects from a text, including the holistic, selective, and atomistic (line-by-line) methods (33). In the present study, the selective approach was utilized. To this end, the transcription of each interview was read several times, and the sentences and phrases that seemed to explain the phenomenon or shade light on the investigated concept were selected.

In order to extract the basic themes, the similar data were merged, and the process of data reduction was carried out. Writing and revising the texts helped the researcher interpret the interviews. The final result was the creation of narrative descriptions of the essence of spiritual growth in the type II diabetic patients and extraction of the basic themes. The trustworthiness of the study results was established using the Lincoln and Gaba's four evaluative criteria (1985), namely credibility, dependability, transferability, and confirmability (34).

The credibility criteria was provided using such methods as prolonged engagement (i.e.,

the allocation of sufficient time for data collection), using the opinions of several phenomenological research experts, and member-checking (i.e., check the results with the participants to ensure if the extracted codes reflect their intention).

According to Lincoln and Gaba (1985), the dependability of the qualitative studies is achieved when the decisions are made so clearly during the research implementation stages that others can confirm the suitability of the study procedure. In the present study, given the fact that the first author was the only person involved in the data collection process, a similar method was employed in all the interviews to obtain more sustainable data.

The confirmability of the data was obtained by the illustration of the implementation stages and activities performed by the researcher in a way that other researchers would be able to follow up the activities. Some of the other factors ensuring the confirmability included the interest of the researcher in the topic under discussion, long-term engagement with the phenomenon, and the use of other individuals' opinions in this regard.

The transferability in the qualitative studies is similar to the generalizability in the quantitative studies (Marten, 2005) (35). A qualitative researcher cannot determine the transferability of his/her study. In this regard, the responsibility of a researcher is to provide a detailed description of the findings, so that others can perform a reliable evaluation based on the provided explanations (Lincoln and Gaba, 1985).

According to the Heidegger's philosophy, in the interpretive studies, it is not possible to have similar judgments even about a specific situation. Nevertheless, in the current study, it was tried to provide the possibility of using the obtained results in similar situations by the readers through the provision of an accurate and clear description of the sampling method, demographics of the participants, and research area.

This study was approved by the Ethics Committee of the Tabriz University of Medical Sciences, Tabriz, Iran, in August 30, 2010. The participants were completely

informed about the objectives and methods of the study. In addition, in order to adhere to the autonomy principle, the participants were free to participate in the study, and written and oral informed consents were obtained prior to the study. In addition, their permission was obtained for recording the interviews, and they were assured of the confidentiality terms.

Results

The mean age of the participants was 48 years (age range: 35-59 years). Furthermore, the mean age of disease diagnosis was $6 \pm$ years (range: 1.13-5 years). In terms of the education level, eight and six subjects had academic education and high school diploma, respectively, and the rest had lower degrees. In addition, 16 cases used oral medications for blood sugar control (i.e., glibenclamide and metformin), and 4 and 2 participants used insulin and a combination of insulin and metformin for treating their disease, respectively. The spiritual growth was determined in form of three main themes and seven subthemes (Table 1).

Tendency to spirituality

The tendency to spirituality was one of the concepts extracted from the experiences of the patients about their perception of diabetes, which received special attention on the part of the participants. Diabetes had led to the attraction of more attention to spirituality in the life of the diabetics. After diagnosis, these people showed more tendency toward this dimension of life. This theme included two subthemes, namely "search for meaning" and "increased spiritual beliefs".

Search for meaning

According to this subtheme, all diabetic patients were looking for meaning in their diagnosis. They considered their disease as another test from God, similar to the other problems they were faced with during their life. They thought that it was their duty to be patient and tolerant toward this test.

Table 1. Themes and subthemes of spiritual growth in the patients with type II diabetes

Basic themes	Subthemes
Tendency to spirituality	Search for meaning
	Increased spiritual beliefs
God-centeredness	Tendency toward religious beliefs and tasks
	Trust in God
	Recourse to God
Moral growth	Dedication and commitment to values
	Ethics-oriented relationship

“When I was diagnosed with high blood sugar, I did not feel sad. I accepted it as part of my destiny and what God wants. I am just like others having this disease, which is the goodness of God. I have always heard that God tests those whom he loves the most.” (Participant 14)

Such statements were more frequently expressed by the patients holding stronger religious beliefs. In addition, those with this type of belief were happier, had fewer complaints about their disease, and were more able to cope with their disease.

“Since I really depend on God, I am not that sad about my disease because I know it is my destiny and what God has planned for me. I say if I was not diagnosed with diabetes, one of my children might instead have faced with a problem, or something bad would have happened to my husband, and I would be left alone with my children. We do not know God’s plans for us, and we just have to be patient when facing with problems in life.” (Participant 3)

The evaluation of the participants’ statements revealed that the spirituality of an individual gives meaning to the disease and increases the capability of the person to cope with the stress caused by disease diagnosis. In addition, spirituality in these patients leads to a deep feeling of calmness, which in turn facilitates the achievement of a higher spiritual level.

“I have never asked God to cure my disease in my prayers. I always say that I am subordinate to God’s wish. I thank God for

this disease since it washes away some of my sins. God has given this disease to me and I did nothing in this regard. Now, I do not know which of my sins has caused this illness. God has given me many blessings; however, I cannot use them. I say to God that I will be patient over my inability to use your gifts and blessings; like a person who is exercising his tolerance by fasting, I will wait as well. Therefore, God, please, do not take away my disease since it is like I am fasting every day.” (Participant 15)

Increased spiritual beliefs

According to the subjects, the disease was like a wake-up call for them to awake their hidden spirituality and increase their spiritual beliefs. The participants believed that having spiritual beliefs in life was one of the most important requirements for the soul. They also thought that similar to the inability to live without food, people could not live without faith and spiritual beliefs.

“My spiritual beliefs have increased after being diagnosed with my disease... In my opinion, a person cannot live without faith... If you do not have hope in God, there is nothing you can do. If there is no faith, we cannot stand against our problems.” (Participant 13)

“After my disease, I came to the conclusion that a healthy person is a Godly person, i.e., someone who has a heart after God’s heart. I think the most important matter in life is belief. I am not talking about fake faith, I am talking about the faith that comes from the heart.” (Participant 4)

God-centeredness

God-centeredness was one of the other themes extracted from the statements of the participants. In this regard, after the disease diagnosis, the majority of the patients regarded themselves to be closer to God and be affected by his support. These patients prayed more than before; furthermore, their assigned spiritual tasks, which had no meaning for them previously, had turned into a lovely and mutual relationship with God. This theme entailed three subthemes, including “tendency toward religious beliefs and tasks”, “trust in God”, and “recourse to God”.

Tendency toward religious beliefs and tasks

According to the subjects, their religious beliefs had been increased and deepened after their disease, had led to better coping with the disease and its associated problems.

“Now, God is the most important concept of my life.” (Participant 5)

“I try to do everything that complies with God’s will. I would like to adjust all my deeds in line with the God’s path. I feel good whenever I connect with God.” (Participant 8)

“Fortunately, my spouse is a tolerant and faithful person, the man cannot live without faith. Whenever we face with a problem, we say it must be the fate and providence of God, and if he wants, my problem will be gradually solved. If you do not live based on God’s will, you cannot stand against the problems.” (Participant 11)

In addition, the results demonstrated that most of the patients with diabetes tried to overcome their problems and reach calmness by orienting towards religious tasks and performing religious obligations.

The majority of the subjects expressed that this disease provided them with more opportunities to modify their religious and spiritual beliefs. Therefore, these patients sought to raise their spirits by performing more religious obligations, such as saying prayers, reading Quran, sending salutation upon the holy prophet and his holy Ahl-al Bayt, and going to religious places.

“Religious beliefs are like the food for soul. For instance, when I hold praying beads in my hand and send salutation upon the holy prophet and his holy Ahl-al Bayt, I feel calm

and do not think about my disease anymore. These types of things are very important in life.” (Participant 18)

“I make myself busy by reading the Quran, and I know that it raises my spirit. I can see its effects... or when it is Ramadan, I feel refreshed. While everyone reminds me that fasting is not good for me, I always look forward to this month since it gives me a good feeling.” (Participant 13)

Trust in God

Most of the participants regarded their disease as a gift from God and a destiny. They surrendered to God’s will and relied on his power during their disease.

“I believe that my disease has occurred in line with God’s goodwill. Therefore, medication and doctors can have positive impacts if he wants. God has given me health, and now he is taking it away from me. A person cannot complain to God about his disease.” (Participant 19)

Almost all of the subjects believed that God determines life and death along with health and sickness and plans people’s destiny. This enhanced the patients’ coping with the disease-related problems.

“God knows everything; therefore, whatever he has destined is good. Everyone has a problem. The illness is also part of the individual’s fate, occurring according to God’s will.” (Participant 12)

“I depend on God; I am not that sad about my disease since I know it was my destiny... We are unaware of God’s plans. We have to be patient against the problems.” (Participant 3)

Recourse to God

Another subtheme of God-centeredness was getting closer to God and recourse to holy Imams, which was revealed to create calmness and provide the ability to face with difficulties.

“Whenever I feel bad, I send salutation to Muhammad and holy Ahl-al Bayt or give alms. I ask from God not to make problems for anyone. Or when I feel sad, I perform Hazrat Zeynab ablution (i.e., ghusl), pray for everyone, and ask from God to bless me with Zeynab’s patience to overcome the problems. My spirit is raised by doing these tasks. I have heard that whenever you call God merciful,

you will succeed, and your wishes will come true. Or if you say “in the name of God”, devil would stay away from you. My spirit is raised when I think about these things, and I feel I have no problems and think that I am healthy.” (Participants 6)

“My relationship with God has developed. Prior to my disease, I had a normal life. I remember that at first, I was really ungrateful and angry with God for making me sick. Now, I pray a lot, not just for myself but for all patients. I feel that I am closer to God now. I just ask God to give me strength to stand on my own feet and not to be dependent on other people.” (Participant 16)

“Whenever I feel sad about my disease and complain about life, the only thing that calms me down is praying. I read Tavasol prayer or Ziarat Ashura. I love Imam Hossein. I feel uplifted by doing these tasks, as if something gets the weight off my shoulders, and all of my problems are solved. I feel calm and leave everything to God.” (Participant 4)

Moral growth

The majority of the subjects believed that being diagnosed with a disease could change a person’s course of life and priorities. It also urged the people to gradually move toward improving their behavioral defects. This theme included two subthemes of “dedication and commitment to values” and “ethics-oriented relationship”.

Being dedicated and committed to values

One of the most important issues observed in the statements of the subjects was the fact that some of them regarded having an ethical life and being committed to moral values to be the result of being diagnosed with diabetes in addition to the other religious matters. They affirmed this issue as a factor that could develop spirituality.

Discussion

According to the findings of the current study, the diabetic patients regarded their disease as a phenomenon resulted in growth, leading to positive spiritual changes. Regarding this, many dimensions of spirituality, including tendency to spirituality, moral growth, and God-centeredness, can be developed in these patients. In Islamic texts, many discussions have been made on the role of life difficulties and disasters in the growth

“In my opinion, spirituality is not just limited to saying prayers. A spiritual person is someone who lives righteously, takes steps toward God, distinguishes right from wrong, recognizes Halal (i.e., what is permissible in Islamic laws) and Haram (i.e., what is forbidden in Islam), and does not violate people’s right. After being diagnosed with my disease, I began to pay more attention to these matters since I think the only things left of us are these issues.” (Participant 2)

The statements of some participants revealed their focus on positive matters, such as contentment, integrity, honesty, lack of emulation, and commitment to ethics.

“I follow the moral principles and try to be honest and truthful.” (Participant 17)

“These days, it is difficult to find someone who is healthy. However, there are people who are happy and have zero concerns. These people settle for less and are grateful for what they have. I am also grateful and believe that contentment is very important. When a person is content, he/she does not think about the things they do not have.” (Participant 5)

Some of the participants believed that having proper relationship with others and communicating with people with moral health were effective in their improved spiritual health.

“While I like to be in gatherings, I love to be involved with the faithful and morally healthy people, i.e., those who are not wrong doers, observe their Hijab in family gatherings, say their prayers, and generally obey all religious orders.” (Participant 14)

“When I socialize with Godly people, I feel calm and healthy. I always like to be in contact with such people.” (Participant 7)

of mankind. According to one of the current Islamic philosophers, life difficulties and troubles can train a person and increase his/her determination, which makes the person more active and determined (36)

Previous studies demonstrated that people experience some levels of mental and spiritual developments when faced with a stressful situation (13, 37, 38). From the mystical perspective, the obstacles and problems are

considered as productive opportunities and growth factors. In this regard, the pain, failures, defects, and shortcomings are seen as factors setting the ground for the ascension to perfection (38). As the results of the present study revealed, the patients with type II diabetes became more oriented toward spirituality after being diagnosed with this disease.

In this regard, the majority of the patients were involved with materialized life as well as their physical, mental, and social needs while paying little attention to spirituality. The disease was a wake-up call for these individuals to distance themselves from the material life and focus more on the spiritual aspects of life. This affected their adjustment to the disease-related difficulties and creation of a sense of calmness. Parsian and Dunning (2009) also mentioned that the diabetic patients can benefit from finding meaning in adjusting to the disease (39).

Two of the factors that were emphasized by all the participants were God-centeredness and trust in God. The people suffering from this disease sought for God and gradually established a deep relationship with him in order to overcome the associated problems. These individuals felt this mutual relationship in all stages of their lives. Similarly, the previous studies have indicated the emergence and development of this relationship with God and having his support (19, 40, 41).

In this study, the belief system and religious beliefs of the participants played an important role in their spiritual development. Accordingly, the majority of the subjects considered their disease as part of the God's goodwill and divine providence. They believed that their health and sickness were up to God. Based on our religious traditions, God loves his dear human creatures; therefore, they have to be patient when faced with problems, such as disease.

Regarding this, the patients tried to cope with and accept the problems caused by their disease through spirituality, trust in God, and recourse to God. It seems that these religious views helped the patients accept and adjust to their condition and gave meaning to their lives. The review of 350 articles related to

physical health and 850 studies on mental health revealed that religion could have an effective role in the prevention, adjustment to, and treatment of the diseases (42).

In addition, according to Spector (2004), the religion factor plays a fundamental role in the perception of an individual toward health and disease (43). Narayanasamy (2004) conducted a study to evaluate the spiritual adjustment mechanisms in the chronic patients and demonstrated that spiritual beliefs resulted in better adjustment to diseases. In the mentioned study, the spiritual beliefs of the patients in terms of finding meaning and purpose in tasks as well as being hopeful for receiving God's help were regarded as important coping mechanisms employed by the participants (44).

In a study conducted by Damron-Rodriguez et al. (2005), which investigated the definition of health in various ethnic groups, reading bible and saying prayers were reported as the actions involved in health promotion (45). Furthermore, Chan et al. (2006) investigated the quality of life among the diabetic patients in Korea. They reported the spiritual/religious life as one of the obtained themes, which was categorized into the subthemes of communication with God and saying prayers.

In the mentioned study, the majority of the participants believed that the factors, which had led to the creation of feeling healthy were having a quiet life, achieved by God's remembrance, praying for God, and feeling grateful for his blessings. In addition, they regarded praying as an important factor in overcoming their disease (46). According to the literature, it could be stated that having spiritual beliefs and religious orientations acts as a stimulating factor for the life, health, and behavior of the individuals with chronic diseases, such as diabetes. These beliefs give meaning to the lives of these individuals and strengthen them in adjusting to their condition and reducing their stress.

Additionally, the spiritual beliefs can lead to mental and physical balance in patients. One of the most important challenges in the achievement of health status is the enhancement of coping ability in the individuals. Accordingly, the spiritual beliefs can contribute to the elimination of these

challenges. Therefore, given the importance of this factor in the improvement of the patient's health, it is necessary to focus on patient education and counseling. This can provide the opportunity for strengthening or creating positive spiritual beliefs in order to support mentally and physically the patients in overcoming the associated stressors.

Another theme evaluated in this study was "moral growth", which has not been addressed in the previous studies (10, 13, 37, 40, 47-49). The spiritual orientations place the individuals in a path in which they try to change their life direction and priorities and move toward the improvement of human morality. In the present study, the patients tried to strengthen their positive characteristics, such as contentment, honesty, lack of emulation, and adherence to morality. To this aim, they increased their communication with the people who owned such attributes.

This classification of spiritual properties was not obtained in a study conducted by Denney et al. (2011) (47). Our findings demonstrated that the confrontation with a chronic and potentially hazardous disease, such as diabetes, was similar to a wake-up call for the patients, which urged them to

strengthen morality and modify their spiritual life.

Conclusion

As the results of the present study revealed, the type II diabetic patients had become more oriented toward spirituality after their disease diagnosis. Furthermore, they considered spirituality as a powerful tool for coping with their disease. Spirituality was concluded to make the patients more purposeful, powerful, and dynamic, helping them to cope with their disease.

The emergence of new classifications in the present study shed light on some of the new aspects of diabetes consequences in the Iranian society. This can help develop the concept of "spirituality" in the nursing field and have a clinical application in this regard. The healthcare providers, including nurses, psychologists, or even clergymen are recommended to use this potential for the improvement of spiritual growth in the diabetic patients to help them in better adjustment to this disease.

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